

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference	<b>FOR FURTHER ACTION</b> see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/US 98/ 13110	International filing date (day/month/year) 24/06/1998	(Earliest) Priority Date (day/month/year) 25/06/1997
Applicant  MASSACHUSETTS INSTITUTE OF TECHNOLOGY et al.		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. ☐ Certain claims were found unsearchable (see Box I).

2. ☐ Unity of invention is lacking (see Box II).

3. ☒ The international application contains disclosure of a **nucleotide and/or amino acid sequence listing** and the international search was carried out on the basis of the sequence listing

☒ filed with the international application.

☐ furnished by the applicant separately from the international application.

☐ but not accompanied by a statement to the effect that it did not include matter going beyond the disclosure in the international application as filed.

☐ Transcribed by this Authority

4. With regard to the **title**, ☒ the text is approved as submitted by the applicant

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this International Search Report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is:

Figure No. \_\_\_\_\_ ☐ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

☒ None of the figures.

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 6 C07K17/14 C07K2/00 G01N33/553 C12N5/00 G03F7/16

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 6 C07K G01N C12N G03F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DATABASE MEDLINE US NATIONAL LIBRARY OF MEDICINE (NLM), BETHESDA, MD, US DUSCHL C ET AL: "Biologically addressable monolayer structures formed by templates of sulfur-bearing molecules." XP002082735	1-3,6, 8-11, 15-17,21
Y	see abstract & BIOPHYSICAL JOURNAL, (1994 SEP) 67 (3) 1229-37. JOURNAL CODE: A5S. ISSN: 0006-3495., United States --- -/--	18,19

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

## Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

30 October 1998

Date of mailing of the international search report

12/11/1998

Name and mailing address of the ISA

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	KNICHEL M ET AL: "UTILIZATION OF A SELF-ASSEMBLED PEPTIDE MONOLAYER FOR AN IMPEDIMETRIC IMMUNOSENSOR" SENSORS AND ACTUATORS B, vol. B28, no. 2, 1 August 1995, pages 85-94, XP000539269	1-3,6, 8-11,15, 16,21
Y	see abstract see figure 1 ---	18,19
X	US 5 330 911 A (HUBBELL JEFFREY A ET AL) 19 July 1994	1-10,15, 17,20
Y	see abstract; claims see column 9; figure 2 see column 13 - column 14 ---	18,19
X	T.A. KELLER ET AL: "Reversible oriented immobilization of histidine-tagged proteins on gold surfaces using a chelator thioalkane" SUPRAMOLECULAR SCIENCE, vol. 2, 1995, pages 155-160, XP002082734	1-3,6,8, 9,12-15, 17,21
Y	see figures 1,2 ---	18,19
Y	WO 96 29629 A (HARVARD COLLEGE) 26 September 1996 see abstract see page 3 - page 4 ---	18,19
A	US 5 620 850 A (BAMDAD CYNTHIA C ET AL) 15 April 1997 -----	

# INT NATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 98/13110

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5330911	A	19-07-1994	US 5278063 A	11-01-1994
			AT 153064 T	15-05-1997
			AU 646644 B	03-03-1994
			AU 6447290 A	28-04-1991
			CA 2066213 A	29-03-1991
			DE 69030730 D	19-06-1997
			DE 69030730 T	02-01-1998
			DK 494216 T	24-11-1997
			EP 0494216 A	15-07-1992
			ES 2102366 T	01-08-1997
			JP 5502998 T	27-05-1993
			WO 9105036 A	18-04-1991
WO 9629629	A	26-09-1996	EP 0812434 A	17-12-1997
US 5620850	A	15-04-1997	NONE	